



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,601	10/14/2003	Frederic Guerin	PO7959/PO-11114	4241

34947 7590 09/14/2005  
LANXESS CORPORATION  
111 RIDC PARK WEST DRIVE  
PITTSBURGH, PA 15275-1112

EXAMINER
----------

RONESI, VICKEY M

ART UNIT	PAPER NUMBER
----------	--------------

1714

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/684,601	<b>Applicant(s)</b> GUERIN ET AL.	
	<b>Examiner</b> Vickey Ronesi	<b>Art Unit</b> 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2005.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1714

### **DETAILED ACTION**

1. Claims 1-7 are now pending in the application.
2. The objections to the specification and claims and 35 USC 112(2) rejections are withdrawn in light of applicant's amendment filed 8/4/2005.
3. The statutory double patenting rejection over copending Application No. 10/728,029 is withdrawn in light of applicant's amendment filed 8/4/2005.
4. Applicant's statements of common ownership at the time of invention for both U.S. Applications No. 10/728,029 and 10/684,867 are acknowledged (pages 10-12 of amendment filed 7/20/2005). Thus, any rejection under 35 USC 103(a) based on 35 USC 102(f) or (g) is precluded.
5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
6. The new grounds of rejection set forth below are necessitated by applicant's amendment filed 8/4/2005. In particular, claims 1, 5, and 6 have been amended to recite a polydispersity index of less than 2.7. Thus, the following action is properly made final.

### ***Claim Rejections - 35 USC § 102/103***

7. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Oyama et al (US 5,651,995).

Oyama et al discloses vulcanization rubber composition comprising a nitrile group-containing copolymer rubber having a Mooney viscosity of 30-100 (col. 3, lines 64-65) and a Mw/Mn ratio of 2.3-5.5 (col. 4, lines 17-24); sulfur or peroxide vulcanizing systems (col. 12, line

Art Unit: 1714

61 to col. 13, line 46); and fillers (col. 13, lines 47-53)—wherein the composition is injection molded (col. 2, line 40; col. 36, lines 64-65) to make articles such as gasket, seals, belts, etc (col. 33, lines 16-38).

In light of the above, it is clear that Oyama et al anticipates the presently cited claims.

To the extent that Oyama et al does not exemplify a composition with the presently claimed Mooney viscosity and polydispersity, it is considered that it would have been obvious to one of ordinary skill in the art to utilize any of the Mooney viscosity or polydispersity values taught by Oyama et al, there be no showing of unexpected or surprising results regarding these ranges, and thereby arrive at the presently claimed invention.

#### *Claim Rejections - 35 USC § 103*

8. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujii (WO 97/36956).

It is noted that the international Patent Application WO publication is being utilized for date purposes. However, since WO 97/36956 is in Japanese, in the discussion below, the US equivalent for WO 97/36956, namely US 6,489,385, is referred to in the body of the rejection below. All column and line citations are to the US equivalent.

Fujii et al discloses a composition comprising a nitrile group-containing nitrile rubber (col. 2, line 35 to col. 3, line 10) having a Mooney viscosity ranging from 5 to 135, preferably from 20 to 90 (col. 4, line 62), with a polydispersity ( $M_w/M_n$ ) of 3-5 (col. 5, lines 17-20) and various other components such as a vulcanizing agents (col. 6, line 61 to col. 7, line 37), fillers (col. 6, lines 52-58), and fibers (col. 11, lines 34-54). Note examples 2, 3, and 4 in Table 1 (col.

Art Unit: 1714

16) which exhibit Mooney viscosities of 35, 38, and 30, respectively and examples 5 and 8 in Table 2 (col. 17) which exhibit Mooney viscosities of 41 and 47, respectively. The composition is combined to form composites (col. 29, lines 34-36).

While Fujii discloses a polydispersity of 3-5 and not the presently claimed polydispersity of less than 2.7, it is the examiner's position that the values are close enough that one of ordinary skill in the art would have expected the same properties. Case law holds that a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties.

*Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

Moreover, Should applicant argue criticality of the presently claimed range of less than 2.7, it will be noted that applicants' data in Table 2 cannot establish criticality for the polydispersity given that the comparison involves both viscosity and polydispersity. Since no appropriate side-by-side example is given, such comparative data has little or no probative value.

9. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujii et al (WO 97/36956) in view of Rau et al (6,187,867).

The discussion with respect to Fujii et al in paragraph 8 above is incorporated here by reference.

Fujii et al does not disclose that an injection molding process is utilized, nevertheless, it discloses that the composition is useful in making belts such as timing belts (col. 11, lines 52-53; col. 29, lines 44-46).

Art Unit: 1714

Rau et al discloses a rubber composition comprising nitrile rubber and teaches that automobile belts, in particular timing belts, are conventionally made by injection molding (col. 4, lines 39-42)

Given that Fujii et al discloses that its composition is suitable for articles such as timing belts and given the teachings by Graefe regarding the conventional means of making timing belts, it would have been obvious to one of ordinary skill in the art to injection mold Fujii et al's composition Fujii's to produce a timing belt and thereby arrive at the presently cited claims.

### *Double Patenting*

10. Since the following obviousness-type double patenting rejections are to copending applications and it not being evident which of the copending applications will become allowable first, applicant's statement regarding the deferment of filing a terminal disclaimer or applicable arguments is acknowledged.

Two obviousness-type double patenting rejections are set forth below.

#### *Double Patenting, I*

11. Claims 1-7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12-14, 16, and 17 of copending Application No. 10/728,029 (published as US PGPub 2004/0132891). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons given below.

US Appl. '029 claims a composite and a process for the manufacture of a shaped article comprising a nitrile rubber having a Mooney viscosity ranging from 30-50, which overlap the presently claimed ranges, a filler, and crosslinking agent such as a peroxide curing system.

US Appl. '029 does not claim the polydispersity, however, note page 3, line 10 where a polydispersity of less than 2.6 is disclosed. Case law holds that those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. *In re Vogel*, 422 F.2d 438, 164 USPQ 619,622 (CCPA 1970).

Thus, it would have been obvious to one of ordinary skill in the art to utilize a nitrile rubber with a polydispersity of less than 2.6 and thereby arrive at the presently claimed invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### *Double Patenting, II*

12. Claims 1-7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of copending Application No. 10/684,867 (published as US PGPub 2004/0113320). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons given below.

US Appl. '867 discloses a composite and a process for the manufacture of a shaped article wherein the Mooney viscosity is less than 30 and the polydispersity is less than 2.7.

Art Unit: 1714

Although the Mooney viscosities of US Appl. '601 do not overlap the presently claimed range of 30-50, it is the examiner's position that the values are close enough that one of ordinary skill in the art would have expected the same properties. Case law holds that a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties.

*Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

Should applicant argue criticality of Mooney viscosity greater than 30, it will be noted that applicants' data only compares Mooney viscosities of greater than 50 to the presently claimed Mooney viscosities (see applicants' Table 1). Such comparative data has little to no probative value. Thus, it would have been obvious to one of ordinary skill in the art to utilize slightly higher Mooney viscosity values in the composition of US Appl. '867 with an expectation of the same properties and thereby arrive at the presently claimed invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Response to Arguments***

13. Applicant's arguments filed 8/4/2005 have been fully considered but they are not persuasive. Specifically, applicant argues that applicant's invention contains a low Mooney optionally hydrogenated polymer prepared via a metathesis reaction in the presence of a metathesis catalyst.

In response to applicant's argument, it is noted that the features upon which applicant relies (i.e., polymer prepared via a metathesis reaction in the presence of a metathesis catalyst) is



Art Unit: 1714

not recited in the rejected claims. Case law holds that while the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### *Conclusion*

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### *Contact Information*

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

Art Unit: 1714


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

9/8/2005

vr



  
VASU JAGANNATHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700